## Message

From: Jane Hoppin [jahoppin@ncsu.edu]

**Sent**: 6/14/2018 3:22:43 PM

To: Nadine Kotlarz [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=userc79d3fb6]

CC: Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]; Strynar, Mark

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]

**Subject**: Re: PFAS in human serum, plasma and whole blood

looks like 2 people gave you 3 opinions.

On Thu, Jun 14, 2018 at 11:17 AM, Nadine Kotlarz < nkotlar@ncsu.edu > wrote:

Jane,

Here are Andy and Mark's thoughts on running whole blood:

It is best that we did our analysis on serum because serum is what NHANES does. The Poothong study found significantly more PFHxA and PFOSA in whole blood than serum. The PFHxA levels are low but statistically significant; the PFOSA difference between serum and whole blood is more compelling... GenX is probably not going to be present in whole blood but it would be good to do a quick check using this targeted approach: Run whole blood samples for a subset of participants who had high Nafion bp2 (as an indicator of their exposure)

Run their whole blood next to their serum using our existing serum method (do not revise the method to create standards in whole blood) and see what we see

Nadine

On Tue, Jun 12, 2018 at 3:46 PM, Nadine Kotlarz < <u>nkotlar@ncsu.edu</u>> wrote: Sure, I'll try to catch them both tomorrow or Thursday morning.

Nadine

On Tue, Jun 12, 2018 at 3:40 PM, Jane Hoppin < <u>jahoppin@ncsu.edu</u>> wrote:

Hi Nadine,

Can you talk this over with Andy and Mark before we go this route? Most folks think we'll measure GenX in urine, not blood. So unless they think it's likely to be in whole blood, I'd rather not pull those samples yet.

Jane

On Tue, Jun 12, 2018 at 3:29 PM, Nadine Kotlarz < <u>nkotlar@ncsu.edu</u>> wrote:

Jane,

I am remembering this earlier conversation about a study that found PFHxA in whole blood only. GenX is thought to behave similarly to PFHxA. Is there any way David and Jamie can also send subaliquots of about ~30 (or 10%) whole blood samples for us to run with our method?

It would be nice to knock out the possibility that GenX is detectable in whole blood (but not serum) before reporting results to the community.

Nadine

----- Forwarded message -----

From: Nadine Kotlarz < nkotlar@ncsu.edu > Date: Wed, Nov 1, 2017 at 11:55 AM

Subject: PFAS in human serum, plasma and whole blood

To: "Lindstrom, Andrew" < Lindstrom. Andrew@epa.gov >, "Strynar, Mark" < strynar.mark@epa.gov >,

Detlef Knappe < knappe@ncsu.edu >

Hi Andy, Mark, Detlef,

FYI, attached is recent paper that evaluated the distribution of various PFAS in whole blood, serum and plasma from 61 adults in Norway. The largest number of PFAS were detected in whole blood samples and PFHxA was only detected in whole blood. They found significantly different concentrations between blood matrices for all 25 PFAS compounds tested except G:2 diPAP in serum/plasma and PFDoDA in plasma/whole blood.

Nadine

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